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FEDERAL COMMUNICATIONS COMMISSION
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service	)	**PR Docket No. 89-552**
	)	
Implementation of Sections 3(n) and 332 of the Communications Act	)	**GN Docket No. 93-252**
	)	
Regulatory Treatment of Mobile Services	)	

To: The Commission

COMMENTS OF E.F. JOHNSON COMPANY

E.F. Johnson Company ("E.F. Johnson" or the "Company"), by its attorneys, pursuant to the provisions of Section 1.415 of the Rules and Regulations of the Federal Communications Commission ("FCC" or "Commission") hereby submits its Comments in response to the Fourth Notice of Proposed Rulemaking ("Fourth Notice") adopted in the above referenced proceeding in which the Commission proposes regulations designed to permit existing 220-222 MHz licensees to seek minor modifications of their licenses. Such modifications would permit licensees to construct and operate base stations at locations other than those specified in their current authorizations.[1]

[1] Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, Fourth Notice of Proposed Rule Making, PR Docket No. 89-552, FCC 95-381 (released August 29, 1995).

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I. INTRODUCTION

E.F. Johnson is a leading designer and manufacturer of radio communications and specialty communications products for commercial and public safety use. Founded over seventy years ago as an electronic components manufacturer, E.F. Johnson entered the radio communications equipment market in the late 1940's and is one of the three largest providers of land mobile radio systems in the United States. It produces base stations, vehicular mounted and portable transmitters that operate in various portions of the radio spectrum that are used by a variety of entities requiring communications capabilities. The Company manufactures products for licensees in among others, the 220 MHz frequency band.

In this proceeding, the Commission has proposed a mechanism by which licensees in the band 220-222 MHz may modify their station authorizations. To date, licensees in the 220-222 MHz band, unlike all other Part 90 licensees, have never been able to modify their authorizations. Yet, modification of the authorizations for 220 MHz systems is critical. Applications for this service were accepted in 1991. Since that time, sites that may have been appropriate for use by 220 MHz licensees may no longer be optimal, or may simply be unavailable. Moreover, applicants for 220-222 MHz facilities were not required, as are applicants in other Commission services, to have reasonable assurance that they could employ the antenna site specified in their authorization. Accordingly, these licensees had every reason to believe that they could secure modified authorization prior to construction.

This inability to secure modified authorization has had a chilling effect on the development of the 220-222 MHz band, originally allocated for use by narrowband communications systems. E.F. Johnson is a party to a licensing agreement with Securicor, Ltd. ("Securicor"), under which the Company manufactures 5 kHz Linear Modulation ("LM")

technology equipment for use at 220 MHz. As a result, the Company has invested significant resources to develop and manufacture 220 MHz equipment. E.F. Johnson is only one of a very limited number of manufacturers to devote the resources to the development and manufacture of narrowband equipment. The 220-222 MHz band was to be the "home" for narrowband technology. The Commission's actions have thwarted the development of these spectrum efficient systems.

The Commission has adopted a Third Notice of Proposed Rule Making in this proceeding[2] designed to provide for geographic licensing of 220 MHz systems. Chairman Hundt has announced that the auctions that will result from the new licensing scheme will be conducted in approximately one year.[3] The systems licensed through that process may not begin to be constructed for another year after that. E.F. Johnson and other manufacturers simply cannot wait two years for the Commission to revitalize the 220 MHz industry. It is critical, therefore, that to promote the development of narrowband technology, and to permit existing 220 MHz licensees to effectively serve the public or their internal communications requirements, the Commission must allow existing licensees every opportunity to construct the channels authorized by their authorizations.

Yet, the Commission's proposals in the Fourth Notice continue to erect obstacles to 220 MHz licensees. Because the success of the existing licensees is critical to the continued development and viability of narrowband technology, the Commission should aggressively act to remove, rather than impose obstacles to their success. E.F. Johnson believes that modification of

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[2] Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, Second Memorandum Opinion and Order and Third Notice of Proposed Rule Making, PR Docket No. 98-552, FCC 95-312 (released August 28, 1995) ("Third Notice").

[3] Remarks of Chairman Reed E. Hundt at a VIP Luncheon of Phillips Business Information, Inc. (released August 25, 1995).

the Commission's proposals is possible to permit the Commission to satisfy what are essentially administrative concerns. Accordingly, E.F. Johnson is pleased to have this opportunity to submit the following comments in an effort to allow, to the maximum extent possible, modification of existing 220 MHz authorizations, which will, in turn, ensure the development of an important, spectrum efficient technology.

II. COMMENTS

A. General

The Commission seeks comments on its proposal to allow existing ("Phase I") licensees to construct and operate base station facilities at currently unauthorized locations. The Commission would not, however, permit any modification to station authorizations that would result in a change in a licensee's coverage contour. Instead, base station locations could only be changed if the resulting 38 dBu V/m coverage contour was contained within the coverage contour of the existing station. The Commission's goal in offering this proposal "is to enable Phase I 220 MHz licensees to provide service within the geographic area they could serve pursuant to their initial authorization, while accommodating those licensees that need to relocate their base stations for technical or other reasons."[4]

It is plainly not the Commission's goal, contrary to the directives of the Communications Act, to make 220 MHz service as broadly available to the public as possible. The Commission gives no rational explanation for limiting existing licensees to providing service within the area defined by their initial authorization. If the Commission's prime concern is to facilitate the modification of 220 MHz systems as quickly as possible (an unlikely possibility, given the Commission's unwillingness to act in the face of months of industry urging) there are methods

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[4] Fourth Notice at ¶ 4.

by which the FCC could both allow modification of existing licensees' service area and avoid lengthy licensing procedures. Instead, the Commission has adopted a proposal which is designed primarily to increase the value of unlicensed 220 MHz spectrum in a future auction at the expense of licensees who are today willing and able to provide service, but for the regulatory constraints imposed by the Commission.

E.F. Johnson has been an active participant in the American Mobile Telecommunications Association's ("AMTA's") 220 MHz Council. The Company strongly supports AMTA's proposal to allow 220 MHz licensees to relocate their transmitter facilities a maximum of one half the distance over 120 km toward any co-channel licensee. Under AMTA's proposal, parties proposing modifications resulting in less than 120 km separation between co-channel licensees would be accepted only with consent of the co-channel licensee(s), as evidenced in a letter submitted concurrently with the application. Any modification that did not meet the parameters proposed by AMTA would be dismissed.

AMTA's proposal is attractive because it avoids the potential submission of mutually exclusive applications, which would delay the licensing and operation of 220 MHz systems. AMTA also proposes a maximum relocation distance of 35 km, in instances where co-channel licensees are greater than 120 km apart. E.F. Johnson recognizes that licensees should be required to serve the area, broadly defined, covered by their original application. Accordingly, some limit on the maximum relocation distance is necessary. The Company supports AMTA's recommendation, although it recognizes that a maximum relocation distance of less than 35 km would also allow licensees flexibility in relocation of their transmitter facilities while ensuring that those licensees continue to serve the area originally specified in their application. The Commission proposes that licensees that secure modified authorizations operate their base

stations with transmit power and antenna height that will result in the transmission of a predicted signal of 38 dBu V/m or more over at least 50% of the licensee's existing service area. Accordingly, it may be unnecessary to place a limitation on how far licensees may relocate their facilities in the absence of co-channel users. The Commission's proposed regulations will effectively act as such a limitation.

B. Service Area Definition

The Commission's proposal is based upon permitting licensees to relocate facilities in a way that does not extend their coverage contour. Accordingly, the Commission defines a 220 MHz service area as a licensee's 38 dBu V/m contour. The Company believes that the Commission has underestimated the coverage characteristics of 220 MHz facilities. The definition of a reliable 220 MHz service area is important in the Commission's consideration of the protection that Phase I licensees will receive from 220 MHz auction winners ("Phase II licensees"). Accordingly, the Commission should not, in this proceeding, prejudge the questions asked in the Third Notice.

Nevertheless, for purposes of modification of station facilities, it is necessary to define the area that licensees may cover, in the event that: 1) the Commission adopts its proposal; or 2) licensees located 120 km apart wish to relocate transmitter facilities. In licensing 220 MHz systems, the Commission assumed that all systems were operating with a maximum output power and antenna height. Accordingly, stations are protected for a distance of 120 km which is the co-channel separation distance necessary, according to the Commission's calculations, for two stations operating with maximum antenna height and power. Because of this presumption, the Commission should permit licensees to provide coverage, after relocation, within the coverage area determined by their maximum, rather than their actual, operating parameters. This

recommended change in the service area definition will allow licensees greater flexibility in relocating station facilities and more accurately recognizes the propagation characteristics of 220 MHz facilities.

C. Modification Proposal

As noted above, E.F. Johnson supports AMTA's recommended approach to the acceptance of applications for modification. Nevertheless, there will be instances in which existing co-channel operations will not permit relocation that will result in a change in a licensee's coverage contour. Accordingly, the Company supports the Commission's proposal to allow the use of additional base stations to "fill in" a licensee's coverage area. E.F. Johnson recommends that the coverage area be based upon the maximum power and antenna height permitted at a licensee's current location. The Company also recommends that licensees be permitted to employ directional antennas, at full power, to cover their authorized area. It also supports the Commission's proposal that licensees be permitted to demonstrate that even in cases where co-channel licensees are situated 120 km apart, station relocation is possible without reduction in antenna power or height, because of unusual terrain.[5]

In the context of this proceeding, the Commission proposes that Phase II licensees be required to provide 10 dB protection to Phase I licensees' existing service contour. The Commission also questions whether there should be a limit on how long Phase II licensees should be required to protect Phase I licensees' predicted contour, as opposed to constructed and operating facilities. E.F. Johnson believes that these questions are more properly considered in the Third Notice. Generally, however, the Company believes that Phase II licensees should be

[5] E.F. Johnson would not necessarily limit such showings to instances of unusual terrain. A variety of technical alternatives, including the use of directional antennas, will permit station relocation without reduction in antenna height and power, while retaining the licensee's original coverage contour.

required to protect a Phase I licensee's coverage area as if the Phase I licensee were operating with the maximum allowable antenna height and power. There should be no time limit on Phase II licensees' obligation to respect this coverage area.

D. Definition of Proposed Modification as "Minor"

The Commission expresses concern that its actions in this proceeding be consistent with the approach taken in the acceptance of applications for modification of Commercial Mobile Radio Service ("CMRS") facilities. The Commission's concerns are irrelevant. First, the Commission has not determined that all 220 MHz licensees are CMRS providers.[6] Accordingly, its reliance on CMRS licensing procedures as an analogy is unnecessary. Second, the Commission specifically postponed, and has not yet resolved, how to treat mutually exclusive applications in the 220 MHz service.[7] The Third Notice is intended to answer application processing questions in the future. The Commission should treat the questions raised in this proceeding as *sui generis*, inasmuch as the problems of existing licensees are unique. The rules adopted as a result of this proceeding will govern only the limited window of opportunity for the immediate submission of applications for modification by existing licensees. By basing its analysis on rules not applicable to this service, the Commission has unnecessarily hampered its ability to remove the regulatory burdens long associated with the 220 MHz industry.

E. Construction and Operation Requirements

The Commission proposes that licensees who apply for modification of their authorizations, to relocate base station facilities, will receive a "service area authorization" and

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[6] Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, Second Report and Order, GN Docket No. 93-252, 9 FCC Rcd 1411 (1994).

[7] Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, Third Report and Order, GN Docket No. 93-252, 9 FCC Rcd 7988 (1994).

that thereafter, the base station constructed under the service area authorization will be the licensee's "primary base station". E.F. Johnson does not object to this approach. However, as noted above, any coverage contour permitted by the service area authorization should be based upon a licensee's maximum allowable antenna height and power.[8] Because such an authorization would confer rights (including the use of fill in transmitters) not previously conferred on 220 MHz licensees, the Company recommends that all 220 MHz licensees be permitted to obtain such an authorization, regardless of whether they require relocation of their primary base station.[9]

E.F. Johnson supports the Commission's proposal to allow licensees who secured modified authorizations an additional four month time to construct their station facilities. The Company also supports the authorization of fill in stations, but recommends that this licensing mechanism be available to all 220 MHz licensees.

III. CONCLUSIONS

E.F. Johnson supports AMTA's proposal to permit 220 MHz licensees to relocate their transmitter facilities a maximum of one half the distance over 120 km toward any co-channel licensee. The Commission should await the outcome of the Third Notice to define a 220 MHz service area, but should ensure that licensees can provide coverage with their maximum operating parameters. The Commission should adopt its proposal to allow the use of additional base stations to "fill in" a licensee's coverage area.

The Commission's concern that its actions in this proceeding be consistent with those taken for CMRS facilities is premature. The Commission has neither determined that all 220

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[8] However, once an authorization were modified to reflect a new primary base station location, the Commission's records would still be required to note the original base station location, for purposes of determining the location from which the 38 dBu V/m contour was based.

[9] E.F. Johnson proposes that only those licensees relocating their base stations would receive the four month construction extension proposed by the Commission.

MHz licensees are CMRS providers nor determined how to treat mutually exclusive 220 MHz applications. Finally, the Commission should permit all 220 MHz licensees to obtain a "service area authorization" based upon maximum antenna height and power.

WHEREFORE, THE PREMISES CONSIDERED, the E.F. Johnson Company hereby submits the foregoing comments and requests that the Commission act in a manner consistent with the views expressed herein.

Respectfully submitted,

E.F. JOHNSON COMPANY

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